



## MODEL 795-10 AMPLIFIER OPERATING INSTRUCTIONS

### DESCRIPTION

Model 795-10 is a multi-purpose all silicon solid state amplifier with an audio output of 10 watts sine wave (RMS). The amplifier is designed for use with a microphone in Public Address installations, also with a ceramic or crystal phone cartridge, a tuner, or other auxiliary equipment. The amplifier has speaker outputs of 4 and 8 ohms, 25 volt line, 70 volt line. Provision is made for matching either a low or high impedance microphone to the input of the amplifier by means of a selector switch. The 795-10 amplifier incorporates a design which eliminates the use of a circuit breaker.

### UNPACKING:

The unit is to be removed carefully from the carton and inspected for any possible damage in transit. If there is any evidence of any damage which might have occurred in shipment, notify your dealer at once, or the transportation company which delivered it. Claims for damage sustained in transit must be made upon the Carrier. Save all packing material for inspection by the claim agent who will furnish you with the proper forms and will also give you the necessary Instructions for filling a claim. In addition to the Unit, there should be a warranty card included in the carton.

To insure proper servicing and to protect your rights under the warranty, be sure to fill in the warranty registration card without delay and mail to the factory.

### WARRANTY

This unit has been very carefully inspected and should require no further service. Each unit is warranted to be free from defects in material and workmanship under normal use and service for a period of one year from date of delivery to the original purchaser. If this unit appears to be defective, the factory will repair any unit returned within said one year, providing all transportation charges are pre-paid, and which our examination shall disclose to our satisfaction to be defective.

This Warranty does not include free labor, nor is it applicable to any unit which shall have been subject to accident, tampered with, mis-used, abused, or altered in any manner whatsoever. Further, this Warranty shall not apply to any unit which has been connected improperly.

It is recommended that any unit on which service is required, be processed through your dealer wherever possible.

This Warranty is expressly in lieu of all other Warranties, expressed or implied, and of all other obligations or liabilities on our part. We neither assume nor authorize any other person to assume for us any other liability in connection with the products manufactured by Trutone Electronics, Inc.

### INSTALLATION:

Because of its attractive appearance this unit may be placed on a table or a shelf. Although the unit has ample vents for normal ventilation, sufficient space should be allowed around it to permit free air flow. DO NOT PLACE it on top of vacuum tube equipment. DO NOT STORE OR OPERATE it in areas where the ambient temperature exceeds 140 degrees Fahrenheit. If installed in a cabinet, ample ventilation must be allowed around the unit.

Plug the AC line cord in any outlet furnishing 105 to 120 volts, 60 cycles AC.

An AC receptacle is located on the back of the chassis to supply power to other components such as phonograph motor, etc. The auxiliary equipment connected to the AC receptacle is controlled by the POWER on-off switch so that turning off the unit turns off all equipment.

## INPUT CONNECTIONS

All connections are made on the rear panel of the unit, and are clearly identified.

A high output ceramic or crystal phono, or a tape recorder with its own preamp, or other auxiliary equipment of a similar nature can be connected to the jack on the back panel marked AUX, TUNER, or MUSIC. If the signal source is a telephone line or a 500 ohm input, the connection can be made to the amplifier by means of a Raymer Telephone Matching Adaptor TM-1 or TM-2.

The microphone input jack is for an unbalanced line only. If it is necessary to use a balanced input, an outboard matching transformer such as Raymer Model LMT-150 must be used. If the signal source is a telephone line or a 500 ohm input, the connection can be made to the amplifier by means of a Raymer Telephone Matching Adaptor TM-1 or TM-2. The switch above the microphone input selects the proper input impedance. The Hi-Z position will match either crystal or high impedance dynamic microphones; the Lo-Z position will match microphones in the 150 to 500 ohm range.

### CAUTION

**TO AVOID POSSIBLE SUPERSONIC OSCILLATION WHICH MIGHT RESULT IN DAMAGE TO THE UNIT, IT IS MANDATORY THAT A SHIELDED (METAL COVER) MICROPHONE PLUG BE USED.**

## OUTPUT CONNECTIONS

All connections are made on the rear panel of the unit.

The speaker(s) or line matching transformers are connected to the screw terminal board located on the rear panel. For short distances, any ordinary insulated wire, such as parallel lamp cord, may be used.

Connecting to the 25 volt or 70 volt tap on the unit permits the use of a number of speakers each with its own corresponding line matching transformer, thereby eliminating the necessity of calculating impedances. The tap on the line matching transformer is selected to give the power desired for each speaker. The total of all the power settings should be no greater than the amplifier output rating.

When a speaker with an impedance of 8 ohms is connected to the amplifier, use the terminals on the amplifier marked GND and 8 $\Omega$ . For a 4 ohm speaker or two 8 ohm speakers in parallel, use GND and 4 $\Omega$ .

The circuit design, which eliminates the use of a circuit breaker, reduces the power delivered to the speaker terminals when the output is shorted or overloaded due to mismatch. For this reason it is very important that the speaker load is properly matched to the correct output terminals of the amplifier to obtain maximum power output from the unit. Four output impedance taps are available: 4 ohms, 8 ohms, 62 ohms (25 volt line), and 500 ohms (70 volt line). Connecting a total load impedance at any tap less than the impedance indicated will deteriorate the performance of the unit.

Long lines have an appreciable resistance with a resultant power loss. The use of parallel matching transformers on either 25 volt or 70 volt lines is recommended for long distances. When it is desired to have less than 15% power loss on low impedance lines and 5% on high impedance lines, the following table may be used as a guide for the proper wire size to be used. In all cases, it is advisable to run as heavy a wire as possible consistent with the requirements.

WIRE SIZE B & S	MAXIMUM LENGTH OF LINE BETWEEN OUTPUT AND LOAD			
	4 Ohms	8 Ohms	62 Ohms (25V)	500 Ohms (70V)
14	125'	250'	650'	5000'
16	75'	150'	450'	3000'
18	50'	100'	250'	2000'
20	25'	50'	175'	1500'

The power transistors are mounted on the back panel. In the event it becomes necessary to replace these transistors, be certain that:

1. No grit or metal particles are lodged between the transistor and the mica or back panel.
2. The mica insulator is not damaged.
3. Both sides of the mica insulator are covered with Dow Corning 7 Silicone Grease or equivalent.
4. The mounting screws are tight.

Made in U.S.A. by

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